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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/440,624	11/16/1999	YUTAKA MAEDA	0879-0244P	3184

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EXAMINER

JONES, HEATHER RAE

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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/440,624	Applicant(s) MAEDA, YUTAKA	
	Examiner Heather R. Jones	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 16-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 16-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments regarding claims 1-26 filed October 9, 2007 have been fully considered but they are not persuasive.

The Applicant argues on page 5, lines 9-21 that Hashimoto fails to disclose sacrificing a high-speed frame rate by lengthening the imaging cycle. The Examiner respectfully disagrees. Hashimoto discloses in col. 1, lines 46-54 that the apparatus comprises an ordinary frame rate (1/30) that is used when a dark scene is to be imaged and a long exposure time is required; and a high speed frame rate that is used when a bright scene is to be imaged and a short exposure time is required. Furthermore, in Fig. 7 step s14 the frame rate is set to the high speed frame rate (1/60) and in step s17b the frame rate is switched to the ordinary frame rate (1/30). Therefore, Hashimoto sacrifices the high-speed frame rate by lengthening the imaging cycle and thereby switches to the ordinary frame rate. Therefore, Hashimoto meets the claim limitations and the rejection is maintained.

2. Applicant's arguments with respect to claim 27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, and 16-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (U.S. Patent 6,498,623) in view of Hashimoto (U.S. Patent 6,972,799).

Regarding claim 1, Anderson et al. discloses an electronic camera, comprising: a display (302) to display a sequence of captured images of an object (col. 8, lines 50-55); an imaging device (224) which captures the sequence of images and outputs image signals for the sequence of images at a rate defined by an imaging cycle (frame rate) of the imaging device (224), the imaging cycle (frame rate) defining a maximum exposure period (exposure time) for the imaging device for the captured sequence of images (col. 7, lines 57-63; col. 8, lines 39-41); a changing device (238) which automatically changes the imaging cycle (frame rate) of the imaging device (224), thereby changing the maximum exposure period (exposure time) for the imaging device (224) (col. 4, lines 64-67; col. 7, lines 53-63 – the frame rate and the exposure time are related as defined by the equation given in col. 7, lines 57-58, therefore, if one changes then the other one would automatically be affected); an image memory (536) for temporarily storing the image signals sequentially outputted from the imaging

device (224), the image signals in the image memory (536) are read out with a predetermined interval and outputted to the display (302) (col. 6, lines 47-65); and a controller (390) which controls the display (302) to display the sequence of images according to the image signals while the imaging device (224) is capturing subsequent images, such that the display (224) shows a live image of the captured sequence of images to enable determination of an image-capturing angle of view (col. 6, lines 60-65 – by showing a live image the user can determine the image-capturing angle of view). However, Anderson et al. fails to disclose a detection device that detects the brightness of the object as well as a changing device that automatically changes the imaging cycle of the imaging device according to the brightness of the object, thereby changing the maximum exposure period for the imaging device for the captured sequence of images, wherein the changing device doubles the default imaging cycle at least once when the brightness of the object is lower than the brightness corresponding to the default imaging cycle.

Referring to the Hashimoto reference, Hashimoto discloses an electronic camera comprising: a detection device, which detects brightness of the object; and a changing device which automatically changes the imaging cycle of the imaging device by doubling according to the brightness of the object, thereby changing the maximum exposure period for the imaging device for the captured sequence of images, wherein the changing device doubles the default imaging cycle at least once when the brightness of the object is lower than the brightness

corresponding to the default imaging cycle. (Fig. 7 – the default imaging cycle is set to 1/60 and then it changes to 1/30 to accommodate the brightness; abstract; col. 1, lines 47-53; col. 1, line 62 – col. 2, line 3; col. 5, lines 33-36; col. 8, lines 22-29; col. 11, lines 42-52; col. 14, lines 50-54; col. 17, lines 25-34; col. 18, lines 14-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the electronic camera disclosed by Anderson et al. and changed the exposure time according to the brightness of the object as disclosed by Hashimoto in order to appropriately cope with different imaging conditions.

Regarding claim 2, Anderson et al. in view of Hashimoto discloses all the limitations as previously discussed with respect to claim 1 except that the changing device is manually operated to change the cycle of the imaging device. Official Notice is taken that the changing device can be manually operated to change the cycle of the imaging device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have manually operated the changing device in order to change the cycle of the imaging device in order to give the user more control over the image capturing process.

Regarding claim 16, Anderson et al. in view of Hashimoto discloses all the limitations as previously discussed with respect to claim 1 as well as further disclosing a signal processor (344) for processing and temporarily storing image

signals outputted by the imaging device (224) before outputting to the display (302) (Anderson et al: col. 6, lines 47-65).

Regarding claim **17**, Anderson et al. in view of Hashimoto discloses all the limitations as previously discussed with respect to claims 1 and 16 as well as further disclosing a memory card (354) for storing select images outputted by the imaging device (224) (Anderson et al.: col. 5, lines 40-49).

Regarding claim **18**, Anderson et al. in view of Hashimoto discloses all the limitations as previously discussed with respect to claim 1 including that the rate is a video rate (frame rate), and the changing device (238) changes the video rate (348) to enable the imaging device to output brighter images to the display (Anderson et al: col. 7, lines 57-63; col. 8, lines 39-41 – correlating the frame rate with the exposure time will allow the display to output brighter images).

Regarding claim **19**, Anderson et al. in view of Hashimoto discloses all the limitations as previously discussed with respect to claim 1, including that the imaging device (224) is a charge coupled device (CCD) that captures the sequence of images (Anderson et al.: col. 4, lines 61-64).

Regarding claims **20-26**, these are method claims corresponding to the apparatus claims 1, 2, and 16-19. Therefore, claims 20-26 are analyzed and rejected as previously discussed with respect to claims 1, 2, and 16-19.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Hashimoto as applied to claim 1 above, and further in view of Yamazaki et al. (U.S. Patent 5,604,537).

Regarding claim 27, Anderson et al. in view of Hashimoto discloses all the limitations as previously discussed with respect to claim 1, but fails to disclose that the changing device halves an imaging cycle longer than the default imaging cycle at least once when the brightness of the object is higher than the brightness corresponding to the imaging cycle.

Referring to the Yamazaki et al. reference, Yamazaki et al. discloses an electronic camera wherein the changing device halves an imaging cycle longer than the default imaging cycle at least once when the brightness of the object is higher than the brightness corresponding to the imaging cycle (Fig. 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the frame rate switching device as disclosed by Yamazaki et al. reference with the changing device disclosed by Anderson et al. in view of Hashimoto in order to include more frame rate speeds to better compensate for the object luminance.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather R. Jones whose telephone number is 571-272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones
Examiner
Art Unit 2621

HRJ
December 21, 2007

A handwritten signature in black ink, appearing to read 'John Miller', with a long horizontal line extending to the right.

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600